

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S293	778	568/454	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 11:04
S294	164841	aldehyde	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 11:04
S295	640	S293 and S294	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 11:05
S296	207797	olefin	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 11:05
S297	575	S295 and S296	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 11:05
S298	9	"4262141"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 12:20
S299	7	"4568653"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 12:21
S300	11	"4400549"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 12:23
S301	9	"4533757"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 12:24
S302	7	"4778929"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 12:26
S303	6	"6100432"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 13:03
S304	2	"6822122"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 13:04

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S305	2	"6969777"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 13:05
S306	2	"6914162"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/17 13:31

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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	185	560/233	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/04/24 11:35

US 20010041808 A1	US-PGPUB	20011115	Production of esters
560/233	560/232; 560/240	560/233	Mozeleski, Edmund J. et al.
US 7005537 B2	USPAT	20060228	Production of esters
560/233	560/232; 560/240	560/233	Mozeleski; Edmund J. et al.
US 6998026 B2	USPAT	20060214	Method for producing
tertiary C.sub.4-C.sub.8-alkyl esters of (meth)acrylic acid			203/29 159/13.1;
			159/27.1; 159/28.3; 159/43.1; 159/48.1; 159/49; 202/154; 202/155; 202/173; 202/186;
			202/236; 202/259; 203/72; 203/75; 203/78; 203/87; 203/DIG.9; 560/218; 560/233;
560/247	560/233	Kroker; Ruprecht et al.	
US 6994799 B2	USPAT	20060207	Ester-containing fluid
compositions	252/71 252/570; 252/578; 252/579; 252/70; 252/73		Van
Driessche; Eddy et al.			
US 6984668 B1	USPAT	20060110	Metal-compound
catalyzed processes	516/33 516/31; 560/233; 562/521; 562/522; 568/428		
560/233	Eastham; Graham Ronald et al.		
US 6982357 B2	USPAT	20060103	PROCESS FOR THE
PREPARATION OF PROPANE-1,3-DIOL BY VAPOR PHASE HYDROGENATION			
OF 3-HYDROXYPROPANAL, BETA-PROPIOLACTONE, OLIGOMERS OF BETA-			
PROPIOLACTONE, ESTERS OF 3-HYDROXYPROPANOIC ACID OR MIXTURES			
THEREOF	568/864	568/852; 568/861; 568/862; 568/863	
Crabtree; Simon Peter et al.			
US 6958243 B2	USPAT	20051025	20 Organic reactions
with CO generating materials	436/128	435/DIG.34; 436/127; 436/73;	
436/76; 436/84	Larhed; Mats et al.		
US 6919474 B2	USPAT	20050719	Cracking of neo-C9
and neo-C13 carboxylic acids to either pivalic acid or methyl pivalate			
560/129	560/233	560/233	Mozeleski; Edmund J. et al.
US 6916954 B2	USPAT	20050712	Catalyst system and
method for carbonylation	562/517	502/159; 502/162; 502/200; 502/213;	
562/521; 562/522	Schafer; Martin et al.		
US 6809217 B1	USPAT	20041026	Process for the
preparation of ethyl acetate	560/231	560/238; 560/239	Colley;
Stephen William et al.			
US 6756506 B2	USPAT	20040629	Method for producing
tert-butyl esters of aliphatic c1-c4-carboxylic acids		560/233	560/231
560/233	Kroker; Ruprecht et al.		
US 6737542 B1	USPAT	20040518	Process for the
carbonylation of conjugated dienes	560/207	560/114; 560/204; 560/233	
560/233	Drent; Eit et al.		
US 6711336 B2	USPAT	20040323	Low optical loss
polymers	385/129	385/130; 385/131; 385/14; 385/141; 430/270.1;	
430/290; 430/321	Blomquist; Robert et al.		
US 6706912 B2	USPAT	20040316	Process for the
carbonylation of ethylenically unsaturated compounds		560/233	
560/204; 560/232; 562/517; 562/522	560/233	Drent; Eit et al.	

US 6680406 B2	USPAT	20040120	Sol-gel derived porous microcomposite of perfluorinated ion-exchange polymer and metal oxide
560/240	528/361; 528/417; 568/617		Harmer; Mark Andrew et al.
US 6677412 B2	USPAT	20040113	Process for preparing a highly active metallocene catalyst supported on polymer bead for olefin polymerization
526/160	502/402; 502/507; 502/81; 526/170; 526/348; 526/904		Ihm; Son-Ki et al.
US 6677268 B2	USPAT	20040113	6 Catalyst based on cobalt and/or rhodium employed in a two-phase medium
252/182.3; 502/166; 546/10; 546/2; 548/101; 548/108; 548/402; 556/137; 556/138; 556/141; 568/451; 568/454; 568/455			Hillebrand; Gerhard et al.
US 6646159 B2	USPAT	20031111	Carbonylation process
562/521	560/232; 560/233; 562/522; 585/654; 585/655	560/233	Baird; Lance A. et al.
US 6639091 B2	USPAT	20031028	7 Bidentate ligand, catalyst system containing such ligand and a process for the carbonylation of ethylenically or acetylenically unsaturated compounds using such a catalyst system
556/21 502/162; 502/167; 556/18; 560/204; 560/233; 560/239; 562/519; 568/12; 568/451; 568/8	560/233		Drent; Eit et al.
US 6570040 B2	USPAT	20030527	Chemoselective ligation
560/233	568/17 435/136; 435/325; 502/162; 560/233; 568/7; 568/8		Saxon; Eliana et al.
US 6562996 B2	USPAT	20030513	Alkyl aromatic aldehydes
562/405	562/406; 562/409; 562/413; 562/480; 568/425		Saleh; Ramzi Yanni
US 6541660 B2	USPAT	20030401	Process for preparing C5 acetate
560/233	560/175; 560/177; 560/241.1; 560/243		Rheude; Udo et al.
US 6521801 B2	USPAT	20030218	Process for preparing 1,3-alkanediol from epoxide derivative
568/864	560/233	568/867	Lee; Byeong-No et al.
US 6521783 B1	USPAT	20030218	Processes for preparing oxygenates
560/232	560/114; 560/206; 560/233; 560/97; 562/406; 562/483; 562/497; 562/517; 562/519; 562/890; 562/891; 568/909	560/233	Wegman; Richard William et al.
US 6515190 B1	USPAT	20030204	Sol-gel derived porous microcomposite of perfluorinated ion-exchange polymer and metal oxide
568/939	568/927		Harmer; Mark Andrew et al.
US 6509293 B1	USPAT	20030121	Gold based heterogeneous carbonylation catalysts
502/243; 502/317; 502/330; 502/439	502/344		502/184; 502/224; Zoeller; Joseph Robert et al.
US 6489506 B2	USPAT	20021203	Process for the palladium and phosphine ligand catalyzed carbonylation of ethylene
560/233	562/522	560/233	Pearson; Jean Margaret et al.

US 6479693 B2	USPAT	20021112	9	Process for the
preparation of a saturated carboxylic acid		560/100		560/105; 560/106;
560/109	Seayad; Jayasree et al.			
US 6476255 B1	USPAT	20021105		Production of esters
560/233	560/233	Hadden; Raymond A et al.		
US 6476170 B1	USPAT	20021105		Solid acrylic resin
using a continuous tube reactor		526/317.1		524/556; 526/227; 526/230;
526/318.6; 526/347; 526/64	Roth; George et al.			
US 6452043 B1	USPAT	20020917		Carbonylation of
lower alkyl alcohols and their derivatives using metals supported on carbonized				
polysulfonated divinylbenzene-styrene copolymers		560/232		560/175;
560/206; 560/207; 560/233; 562/517; 562/518; 562/519; 562/521; 562/522		560/233		
Zoeller; Joseph Robert et al.				
US 6372923 B1	USPAT	20020416		Process for preparing
alcohol derivatives		549/516		
568/608; 568/614; 568/618; 568/621		560/183; 560/184; 560/187; 560/209;		
	Uno; Mitsuru et al.			
US 6355711 B1	USPAT	20020312		High performance
plasticizers from branched oxo alcohols		524/285		524/287; 524/296;
524/297; 524/306; 524/311; 524/315; 524/318; 560/233; 560/97				560/233
Godwin; Allen David et al.				
US 6333430 B1	USPAT	20011225		Process for preparing
tert-alkyl ester from carboxylic acid		560/203		560/204; 560/241; 560/247
Shintaku; Tetsuya et al.				
US 6320083 B1	USPAT	20011120	10	Process for making
aromatic aldehydes using ionic liquids		568/428		562/418; 562/480;
562/889	Saleh; Ramzi Yanni			
US 6303827 B1	USPAT	20011016		Process for making
aromatic aldehydes		568/428		562/418; 562/480; 562/889
Ramzi Yanni et al.				Saleh;
US 6294687 B1	USPAT	20010925		Process for the
preparation of saturated carboxylic acids and their esters				560/114
560/233; 562/406	560/233	Chaudhari; Raghunath Vitthal et al.		
US 6284919 B1	USPAT	20010904		Process for
carbonylation of ethylene		560/233		562/522
Pearson; Jean Margaret et al.				560/233
US 6274096 B1	USPAT	20010814		Methanol plant
retrofit		422/148		
562/894	560/233	518/713; 560/206; 560/232; 560/233; 562/519; 562/893;		
	Thiebaut; Daniel Marcel et al.			
US 6160190 A	USPAT	20001212		Alkylation of
aromatic compounds using a sol-gel derived porous microcomposite of perfluorinated				
ion-exchange polymer and metal oxide		585/458		585/462; 585/467
Harmer; Mark Andrew et al.				
US 6049011 A	USPAT	20000411	9	Hydroformylation
process		568/451		
560/233	560/233; 560/247; 568/454; 568/878; 568/882; 568/883			
Kiss; Gabor et al.				

US 6037506 A	USPAT	20000314	4	Hydroformylation
process	568/909	560/233; 568/454	560/233	Bolinger; Cornelius
Mark				
US 6034290 A	USPAT	20000307		Porous
microcomposite of metal cation exchanged perfluorinated ion-exchange polymer and network of metal oxide, silica, or metal oxide and silica				570/236
Harmer; Mark Andrew et al.				
US 6011171 A	USPAT	20000104		Process for synthesis
of tertiary carboxylic acids and the esters thereof			560/233	560/114;
560/204; 560/232; 562/497; 562/519; 562/522		560/233		Xu; Qiang et al.
US 5948946 A	USPAT	19990907		Use of sol-gel derived
porous micropositive of perfluorinated ion-exchange polymer and metal oxide to isomerize terminal olefins	585/669	585/664; 585/666; 585/670		
Harmer; Mark Andrew et al.				
US 5936117 A	USPAT	19990810		Carbonylation of
olefins	560/233	562/521; 562/890	560/233	Zoeller; Joseph
Robert et al.				
US 5932761 A	USPAT	19990803		Process for producing
branched aldehydes	560/233	560/175; 560/176; 560/177; 560/178;		
560/231	560/233	Omatsu; Toshihiro et al.		
US 5916837 A	USPAT	19990629		Porous
microcomposite of metal cation exchanged perfluorinated ion-exchanged polymer and network of metal oxide, silica or metal oxide and silica				502/170
				502/151; 502/158; 502/159; 502/234; 502/237; 502/238; 502/260; 502/261;
				502/262; 502/319; 502/349; 502/350; 502/355; 502/402; 502/407; 502/415
Harmer; Mark Andrew et al.				
US 5866716 A	USPAT	19990202		Process for
Selectively preparing carboxylic acids by carbonylation of olefins				562/522
Schafer; Martin et al.				
US 5834622 A	USPAT	19981110		Process for the
carbonylation of a carbonylatable reactant		560/232		560/233; 562/517;
562/519; 562/520; 562/522	560/233	Sunley; John Glenn		
US 5824622 A	USPAT	19981020		Porous
microcomposite of perfluorinated ion-exchange polymer and metal oxide, a network of silica, or a network of metal oxide and silica derived via a sol-gel process				
	502/407	502/158; 502/159; 502/234; 502/237; 502/402; 502/415		
Harmer; Mark Andrew et al.				
US 5780684 A	USPAT	19980714	6	Hydroformylation
reactions	568/454	568/451		Drent; Eit et al.
US 5767046 A	USPAT	19980616		Functionalized
additives useful in two-cycle engines		508/443		508/444; 508/463; 508/465;
508/551	Cusumano; Joseph V. et al.			
US 5760284 A	USPAT	19980602		Process and catalyst
for carbonylating olefins	560/233	562/521; 562/890	560/233	
Zoeller; Joseph Robert				

US 5717039 A	USPAT	19980210	Functionalization of 525/340
polymers based on Koch chemistry and derivatives thereof			
525/331.7; 525/332.1; 525/332.8; 525/332.9; 525/333.1; 525/333.2; 525/333.7; 525/333.9; 525/343; 525/353; 525/355; 525/383 Cusumano; Joseph Victor et al.			
US 5710326 A	USPAT	19980120	Catalyst regeneration
process 562/521		Beck; Carl R.	
US 5705683 A	USPAT	19980106	Carbonylation of
olefins 562/522	560/233; 562/890; 562/895	560/233	Lippert;
Ferdinand et al.			
US 5703256 A	USPAT	19971230	Functionalization of 554/224
polymers based on Koch chemistry and derivatives thereof			
Cusumano; Joseph Victor et al.			
US 5698722 A	USPAT	19971216	Functionalization of 554/219
polymers based on Koch chemistry and derivatives thereof			
525/331.7; 525/333.3; 525/333.7; 525/333.8; 525/333.9; 525/383; 554/121; 554/122; 554/128; 558/250; 558/251; 560/190; 560/193; 560/204; 560/205; 560/233; 562/595; 562/598 560/233 Cusumano; Joseph Victor et al.			
US 5696064 A	USPAT	19971209	Functionalization of 508/466
polymers based on Koch chemistry and derivatives thereof			
Cusumano; Joseph Victor et al.			
US 5679831 A	USPAT	19971021	Process for the
preparation of an ester	560/204	502/162; 502/167; 560/233; 560/239;	
562/519 560/233	Sielcken; Otto E.		
US 5672743 A	USPAT	19970930	Process for the
production of acetic acid	562/519		Garland; Carl
Sherman et al.			
US 5650536 A	USPAT	19970722	Continuous process 560/193; 560/233
for production of functionalized olefins	560/204		
560/233	Dankworth; David C. et al.		
US 5646332 A	USPAT	19970708	Batch Koch
carbonylation process	560/204		Cusumano; Joseph V. et al.
US 5643859 A	USPAT	19970701	Derivatives of
polyamines with one primary amine and secondary of tertiary amines			
508/454	44/383; 44/386; 508/443		Gutierrez; Antonio et al.
US 5629434 A	USPAT	19970513	Functionalization of 554/219
polymers based on Koch chemistry and derivatives thereof			
44/393; 508/443; 508/469; 525/331.7; 525/333.3; 525/333.7; 525/333.8; 525/333.9; 525/383; 554/121; 554/122; 554/128; 558/250; 558/251; 560/190; 560/205; 562/595; 562/598 Cusumano; Joseph V. et al.			
US 5463095 A	USPAT	19951031	Process for the
production of esters	554/130	554/150; 554/151; 560/206; 560/233	
560/233	Shiokawa; Yoshihiro et al.		
US 5393922 A	USPAT	19950228	Catalytic direct
oxidation of hydrocarbons to acids	562/542	562/544; 562/549	
Sen; Ayusman et al.			

US 5371274 A	USPAT	19941206	Methods for producing ethylidene diacetate using catalysts supported on an organic carrier
560/232		Park; Dae C. et al.	
US 5364957 A	USPAT	19941115	Carbonylation process
using palladium phosphine catalyst		560/207	560/233 560/233
Arnoldy; Peter et al.			
US 5324856 A	USPAT	19940628	Making optically
active alpha-hydroxy acids or precursors		562/589	560/114; 560/185;
560/233; 562/401; 562/579; 562/581	560/233	Cesa; Mark C. et al.	
US 5321155 A	USPAT	19940614	Process for the
production of cyclohexyladipates and adipic acid		562/524	560/193;
560/233 560/233	Drinkard; William C. et al.		
US 5241112 A	USPAT	19930831	Preparation of
trialkylacetic acids, particularly of pivalic acid, using solid acid catalysis			
562/521 554/83	Sanderson; William A. et al.		
US 5237097 A	USPAT	19930817	Catalytic
carbonylation process	562/519	560/175; 560/232; 560/233; 562/406;	
562/517 560/233	Smith; David W. et al.		
US 5227521 A	USPAT	19930713	Preparation of
trialkylacetic acids, particularly of pivalic acid, using Lewis acid catalysts			
562/521 203/66; 562/599	Richard; Michael A. et al.		
US 5218145 A	USPAT	19930608	Method for making
isobutyric acid	562/521 560/233 560/233		Ruppert; Wolfgang et al.
US 5210280 A	USPAT	19930511	Process for the
preparation of alkanedioic acid derivatives	560/204	549/231; 549/233;	
554/113; 554/129; 554/68; 558/353; 558/441; 558/443; 560/190; 560/193		Drent;	
Eit			
US 5206396 A	USPAT	19930427	Telomerization of
1,3-butadiene	554/27 556/21; 560/233; 560/244; 568/651	560/233	
Gruber; Bert et al.			
US 5200547 A	USPAT	19930406	Preparation of
urethane and carbonate products	558/265	558/260; 558/270; 558/275;	
560/115; 560/157; 560/24	Riley; Dennis P. et al.		
US 5194676 A	USPAT	19930316	Catalyst and process
for the synthesis of saturated carboxylic esters	560/241	560/232;	
560/233 560/233	Castanet; Yves et al.		
US 5179224 A	USPAT	19930112	Preparation process of
cinnamate ester	560/105	560/233; 562/406; 562/497; 562/521	
560/233	Takaki; Usaji et al.		
US 5169985 A	USPAT	19921208	Continuous method
for making isobutyric acid	562/521 560/233	560/233	
Ruppert; Wolfgang et al.			
US 5166116 A	USPAT	19921124	Carbonylation
catalyst system	502/167	502/162	Drent; Eit et al.

US 5158921 A	USPAT	19921027	Carbonylation
catalyst and process	502/167	560/114; 560/207; 560/232; 560/233;	
560/97; 562/406; 562/497; 562/512	560/233	Drent; Eit et al.	
US 5124300 A	USPAT	19920623	Carbonylation
catalyst system	502/167	502/166; 560/232; 560/233	560/233
Drent; Eit			
US 5075492 A	USPAT	19911224	Method of
manufacturing cyclooctanedicarboxylic acid diesters		560/114	
Keil; Thomas			
US 5072005 A	USPAT	19911210	Process for the
preparation of methyl 4-oxobutyrate and its methanol addition products			
549/313	560/175; 560/186	Murib; Jawad H. et al.	
US 5055611 A	USPAT	19911008	Process for recycling
and regenerating carbonylation catalyst used in synthesis of ibuprofen			
562/406	Lin; Ronny W. et al.		
US 5041623 A	USPAT	19910820	Preparation of alkyl
propionates	560/233	560/233	Reman; Willem G. et al.
US 5028734 A	USPAT	19910702	7
selective preparation of alkenedicarboxylic acid derivatives		560/207	
536/119; 554/129; 560/114; 560/204; 560/233; 560/97; 562/406; 562/497;			
562/522; 562/890	560/233	Drent; Eit	
US 5003104 A	USPAT	19910326	Carbonylation process
and catalyst	562/517	560/206; 560/232; 560/233; 560/97; 562/406;	
562/518; 562/519; 562/520; 562/521	560/233	Paulik; Frank E. et al.	
US 4973741 A	USPAT	19901127	7
from ethylene oxide and synthesis gas		560/179	
Beavers; William A.		568/428; 568/429	
US 4960926 A	USPAT	19901002	Process for the
carbonylation of olefinically unsaturated compounds with a palladium catalyst			
554/129	558/353; 560/105; 560/114; 560/155; 560/179; 560/187; 560/204;		
560/233; 562/406; 562/497; 562/522; 562/890	560/233	Drent; Eit	
US 4946029 A	USPAT	19900807	Purification of
carboxylic esters which contain aldehydes, acetals and/or unsaturated compounds			
203/29 203/32; 203/34; 203/35; 203/38; 203/74; 203/91; 560/190; 560/191;			
560/204; 560/248	Frank; Gerhard et al.		
US 4945179 A	USPAT	19900731	Process for the
preparation of esters of carboxylic acids and catalytic system for use therein			
560/233	554/129; 554/130; 558/441; 560/105; 560/114; 560/155; 560/175;		
560/179; 560/187; 560/226	560/233	Drent; Eit	
US 4929755 A	USPAT	19900529	Process for making an
optically active mixture of an N-acyl-amino acid or ester containing at least two chiral			
centers	562/443	548/339.1; 548/479; 548/533; 548/535; 560/153; 560/16;	
560/169; 560/170; 560/171; 560/40; 560/41; 562/445; 562/446; 562/493; 562/503;			
562/557; 562/559; 562/561; 562/567; 562/571; 562/573; 562/575; 562/590; 562/601			
Cesa; Mark C. et al.			

US 4902822 A	USPAT	19900220	Process for the preparation of carboxylic acids or esters thereof	554/128	502/168;
502/171; 554/129; 560/233; 562/522 560/233 Drent; Eit					
US 4894188 A	USPAT	19900116	Process for producing fatty acids and their ester derivatives	554/130	554/150; 560/114; 560/232; 560/233; 562/497; 562/517; 562/519; 562/521
			560/233	Takahashi; Takehiko et al.	
US 4892687 A	USPAT	19900109	Process for synthesis of amidoacids using a cobalt catalyst and a bidental phosphine ligand		
554/112 560/253; 562/406; 562/518; 562/522; 564/132; 564/155; 564/157; 564/159 Lin; Jiang-Jen					
US 4859645 A	USPAT	19890822	Catalyst compositions and a process for polymerizing carbon monoxide and olefins	502/154	
			502/162	Van Broekhoven; Johannes A. M. et al.	
US 4831113 A	USPAT	19890516	Process for polymerizing carbon monoxide and olefins with a quinone	528/392	
			502/154	Van Broekhoven; Johannes A. M. et al.	
US 4824935 A	USPAT	19890425	Process for polymerizing carbon monoxide and olefins with ether	528/392	
			502/154	Van Broekhoven; Johannes A. M. et al.	
US 4824934 A	USPAT	19890425	Process for polymerizing carbon monoxide with a quinone	528/392	502/154
van Broekhoven; Johannes A. M. et al.					
US 4804739 A	USPAT	19890214	Process for preparing carbon monoxide polymer with quaternary phosphonium compound bidentate ligand		
			528/392	Drent; Eit	
US 4791227 A	USPAT	19881213	Method for handling reaction mixtures containing hydrogen fluoride	562/521	203/86;
203/DIG.16; 203/DIG.6; 423/418.2; 560/233; 562/606				560/233	Neumann;
Alfred et al.					
US 4782173 A	USPAT	19881101	Synthesis of methionine hydroxy analog or derivative, and esters thereof; synthesis of 1-acyloxy-4-hydrocarbylthiopropene, and products	558/255	560/262; 560/264; 562/581
			Burrington; James D. et al.		
US 4777284 A	USPAT	19881011	Continuous preparation of carbalkoxy-containing aliphatic compounds	560/204	
			560/190; 560/207; 560/233 560/233	Maerkl; Robert et al.	
US 4743705 A	USPAT	19880510	Preparation of acrylate esters	560/207	560/206
			Hucul; Dennis A. et al.		
US 4690912 A	USPAT	19870901	Rhodium-containing carbonylation catalysts with halogen-containing promoter	502/161	
502/155; 502/166; 502/169; 502/174; 502/230; 560/232; 562/406; 562/519; 562/607					
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US 4550195 A	USPAT	19851029	Manufacture of pent-
3-enoic acid and its alkyl esters	560/206		Platz; Rolf et al.
US 4540811 A	USPAT	19850910	Preparation of
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US 4536597 A	USPAT	19850820	Selective
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US 4536340 A	USPAT	19850820	Process for the
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US 4522760 A	USPAT	19850611	Recovery of
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US 4521614 A	USPAT	19850604	Carbonylation of
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US 4521526 A	USPAT	19850604	Methods for
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US 4518798 A	USPAT	19850521	Preparing esters and
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US 4508660 A	USPAT	19850402	Carbonylation of
olefinically unsaturated nitriles and acids using a sulfone solvent	558/353		
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US 4504675 A	USPAT	19850312	Method for making
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US 4500727 A	USPAT	19850219	Process for producing
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US 4495359 A	USPAT	19850122	43 Prins reaction
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US 4485245 A	USPAT	19841127	Hydrogenation of
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	Hsu; Chao-Yang et al.		

US 4481147 A	USPAT	19841106	Process for preparing
alkylesters of saturated aliphatic carboxylic acids		554/131	560/233
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US 4452999 A	USPAT	19840605	Method for making
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US 4451407 A	USPAT	19840529	Carbonylation of
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568/455	560/233	Pesa; Frederick A. et al.	
US 4433166 A	USPAT	19840221	Process for stabilizing
carbonylation catalyst in soluble form		562/519	554/130; 558/353;
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562/608	560/233	Singleton; Thomas C. et al.	
US 4433165 A	USPAT	19840221	Process for stabilizing
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562/608	560/233	Singleton; Thomas C.	
US 4431593 A	USPAT	19840214	Ester preparation by
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560/233	Jenck; Jean		
US 4424375 A	USPAT	19840103	Method and apparatus
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US 4421691 A	USPAT	19831220	Preparation of fatty
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US 4414409 A	USPAT	19831108	Palladium sulfonate
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US 4400300 A	USPAT	19830823	Method for
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US 4390717 A	USPAT	19830628	Process for preparing
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US 4377708 A	USPAT	19830322	Hydrocarboxylation
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562/517; 562/518; 562/589; 562/606; 562/607; 568/450; 568/484			Morris;
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US 4364869 A	USPAT	19821221	Process for producing
alkyl esters of saturated aliphatic carboxylic acids		554/129	203/61;
554/131; 560/114; 560/204; 560/232; 560/248			Muller; Wolfgang H. E. et al.

US 4354978 A	USPAT	19821019	Process for preparing
alpha-methyl monobasic acid and esters thereof		554/130	560/233;
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US 4354036 A	USPAT	19821012	Preparation of
carboxylic acid esters	560/233	554/129; 560/100; 560/101; 560/105;	
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US 4353783 A	USPAT	19821012	Process for separating
water from mixtures thereof with vinyl acetate and acetic acid			203/14 203/51
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US RE31010 E	USPAT	19820810	Preparation of
carboxylic acid esters with BF.sub.3 complex catalyst		560/233	560/233
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US 4334042 A	USPAT	19820608	6 Carbonylation of
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US 4331612 A	USPAT	19820525	Carbonylation of
olefinically unsaturated compounds		558/353	549/295; 560/233; 562/522;
564/132; 568/455; 568/594	560/233	Pesa; Frederick A. et al.	
US 4323698 A	USPAT	19820406	Resin-metal
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US 4322314 A	USPAT	19820330	Process for separating
cobalt component from hydroesterification reaction mixture		502/22 423/139;	
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US 4313893 A	USPAT	19820202	Carbonylation of
olefinically unsaturated compounds		558/353	560/233; 560/243; 564/132;
568/594; 568/697	560/233	Pesa; Frederick A. et al.	
US 4312781 A	USPAT	19820126	Process for the
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US 4311851 A	USPAT	19820119	Preparation of
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US 4303589 A	USPAT	19811201	Hydroesterification
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US 4301090 A	USPAT	19811117	8 Carbonylation of
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US 4292437 A	USPAT	19810929	Preparation of
isobutyric acid and esters	560/233	502/162	560/233 Squire;
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US 4269781 A	USPAT	19810526	Dimeric
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US 4262138 A	USPAT	19810414	Preparation of
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US 4258206 A	USPAT	19810324	Selective
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US 4257973 A	USPAT	19810324	Process of making
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US 4256913 A	USPAT	19810317	Preparation of
carboxylic acids using a BF ₃ catalyst complex			562/521 203/66;
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US 4256909 A	USPAT	19810317	Preparation of
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US 4255591 A	USPAT	19810310	Carbonylation process
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US 4252741 A	USPAT	19810224	Carbonylation with
Group VIII noble metal catalysts	562/891		560/232; 560/233; 568/484
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US 4246195 A	USPAT	19810120	Purification of
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US 4245115 A	USPAT	19810113	Selective
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US 4244882 A	USPAT	19810113	Process for
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US 4238357 A	USPAT	19801209	Carbonylation of
olefinically unsaturated compounds	502/161		558/353; 560/233; 564/132;
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US 4215065 A	USPAT	19800729	Acid separation
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US 4209467 A	USPAT	19800624	13 Hydroformylation
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US 4179403 A	USPAT	19791218	12 Resin-ligand-metal
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US 4179402 A	USPAT	19791218	Resin-metal-ligand
composition	502/159	518/715; 518/716; 560/233; 568/444; 568/454;	
568/455; 585/277; 585/520; 585/645; 585/734	560/233	Kim; Leo et al.	
US 4171451 A	USPAT	19791016	Manufacture of
butanedicarboxylic acid esters		560/204	560/206
Kummer; Rudolf et al.			
US 4169956 A	USPAT	19791002	Manufacture of
butanedicarboxylic acid esters		560/204	560/206
Kummer; Rudolf et al.			
US 4166189 A	USPAT	19790828	Production of methyl
esters by contacting methanol or dimethyl ether with carbon monoxide and zinc iodide			
560/232	560/233; 585/409; 585/733; 585/943	560/233	Wald; Milton
M. et al.			
US 4102922 A	USPAT	19780725	Purification of
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US 4100110 A	USPAT	19780711	Isolongifolene Prins
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